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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,057	07/23/2003	Edward N. Hill	8789-16CT2	3292

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EXAMINER	
BADIO, BARBARA P	

ART UNIT	PAPER NUMBER
1617	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/628,057	HILL ET AL.	
	Examiner	Art Unit	
	Barbara P. Badio, Ph.D.	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-7,10,13-18,21,24-29 and 32-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-7,10,13-18,21,24-29 and 32-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

First Office Action on the Merits of a RCE

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Status of the Application

2. Claims 1, 4-7, 10, 13-18, 21, 24-29 and 32-34 are pending in the present application.

Double Patenting

3. The objection to claims 35 and 36 under 37 CFR 1.75 is made moot by the cancellation of the instant claims.

Claim Rejections - 35 USC § 112

4. The rejection of claims 35 and 36 under 35 USC 112, first paragraph is made moot by the cancellation of the instant claims.

5. The rejection of claims 33 and 34 under 35 USC 112, first paragraph is maintained.

Applicant argues the specification recites "glucuronide" as a potential substituent for the claimed compounds and the claimed "$NaC_6H_8O_7$" is a nonlimiting example of a glucuronide. Applicant also argues that it is possible for different substituents to have

the same or similar chemical shifts. Thus, according to applicant, the combination of the chemical formula and spectral characteristics provides the physicochemical characteristics of the claimed compound. Applicant's argument was considered but not persuasive for the following reason.

Applicant cannot claim specific subject matter, such as a specific compound, not disclosed by the original specification (see MPEP § 706.03(o)). Thus, even if one agrees with applicant's argument, the broad disclosure of glucuronide as a potential substituent does not provide support for the presently claimed compounds.

For this reason and those given in previous Office Actions, the rejection of claims 33 and 34 under 35 USC 112, first paragraph is maintained.

6. The rejection of claims 1, 4, 6, 7, 10, 13, 15-18, 21, 24, 26-29 and 32 under 35 USC 112, second paragraph is withdrawn.

Claim Rejections - 35 USC § 102

7. The rejection of claims 1, 4-7, 10, 13-16, 21 and 24-27 under 35 USC102(b) over Harnik (IL 25265) is withdrawn.

Claim Rejections - 35 USC § 103

8. The rejection of claims 17, 18, 28, 29 and 32 under 35 USC 103(a) over Harnik (IL 25265) is maintained and claims 1, 4-7, 10, 13-16, 21 and 24-27 are rejected under 35 USC 103(a) over Harnik (IL 25265).

Harnik teaches several estrogenic estrane derivatives such as 3,6-dimethoxy-estra-1,3,5,7,9-pentaen-17-ol and 3,6-dimethoxy-estra-1,3,5,7,9-pentaen-17-one (see Abstract).

The instant claims differ from the reference by reciting a chemically pure form. However, it has been held that a purer form of a known compound is unpatentable unless the purified material possesses properties and utilities not possessed by the unpurified material. *Ex parte Reed*, 135 USPQ 34, 36 (POBA 1961). In addition, the skilled artisan in the art would be motivated to obtain a pure compound for use in pharmaceuticals because he would have the reasonable expectation that increase purity of a compound would result in a decrease in adverse effect related to impurities.

Claims 17, 18, 28 and 29 further differ from the reference by reciting the addition of other pharmaceutically active ingredient(s) such as other estrogenic compounds. Combination therapy is well known in the art and, thus, it would have been obvious to the skilled artisan in the art at the time of the present invention to combine another estrogenic compound with the compounds of Harnik with the reasonable expectation that the combination obtained would maintain its estrogenic property and, thus, would be useful in the treatment of condition treatable by estrogen therapy. Also as stated in previous Office Actions, the court has held that the combination of two or more compounds/compositions having the same use to form a third having the same use is prima facie obvious.

Claim 21 further differ from the reference by reciting utilization of the claimed compounds in the treatment of a subject in need of estrogen therapy. Claim 32 which

depends from claim 21 recites specific conditions. However, the utilization of estrogen therapy in treatment the conditions encompassed by the instant claims are well known in the art (see for example, Background of the Invention, as disclosed by the present specification; additional references can be provided if requested). Therefore, the utilization of the prior art estrogenic compounds in estrogen replacement therapy for treatment of conditions such as vasomotor symptoms, atrophic vaginitis etc. would have been obvious to the skilled artisan in the medical art at the time of the present invention.

Response to Arguments

9. Applicant argues the reference does not teach or suggest a substitution at the 3-position to provide the presently claimed compounds. Applicant also argues the reference does not teach (a) deriving a purified compound and (b) a pharmaceutical composition and (c) the art does not provide motivation to use the prior art compounds for estrogen replacement therapy. Applicant's argument was considered but not persuasive for the following reasons.

As discussed in previous Office Actions, the claims encompass conjugates of the claimed compound represented by formula I. The present specification states "the conjugates may be various conjugates understood by those skilled in the art, including, but not limited to glucuronide and sulfate" (see page 8, lines 10-12 of the present specification). It is also well known that to "conjugate" is to join together two parts. Glucuronide and sulfate conjugate to form esters of the claimed compounds. Like,

glucuronide and sulfate, the ether groups of the prior art compound conjugate by forming an ether.

Applicant argues the prior art does not teach deriving a purified compound. As discussed above in #8, it would obvious to the skilled artisan in the art at the time of the present invention to obtain a compound in pure form for use as a pharmaceutical agent. The pharmaceutical art makes obvious that impurities result in increase adverse effects and, thus, the skilled artisan in the art at the present invention would have been motivated to obtain the prior art compound in pure form for use as an estrogenic agents as taught by Harnik. Also as discussed above in #8, absence a showing of unexpected properties and utilities possessed by the purer form of a known compound that is not possessed by the unpurified material, said pure form is unpatentable. The present specification lacks a showing of unexpected properties and utilities.

Applicant also argues the prior art does not teach a pharmaceutical composition. However, the addition of a carrier to a known compound does not render the combination patentable. In re Lerner (CCPA 1971) 438 F2d 1008, 169 USPQ 51. The reference teaches the prior art compounds are estrogenic and, thus, the addition of a carrier to said compounds would have been obvious to the skilled artisan in the art at the time of the present specification.

Lastly, applicant argues the skilled artisan would not be motivated to use the prior art compounds for estrogen replacement therapy. According to applicant, at best, the skilled artisan may find it obvious to try the prior art compounds in estrogen replacement therapy. The examiner notes that the present specification lacks any

working example of the claimed compounds in estrogen replacement therapy. However, according to the present specification, the art teaches providing estrogen is an effective way to treat conditions due to estrogen deprivation (see page 1 of the present specification, Background of the Invention). Based on the level of skill of the ordinary artisan in the art at the time of the present invention, the utilization of the prior art compounds in the treatment of conditions due to estrogen deprivation would be prima facie obvious as discussed above in #8 and previous Office Actions. The motivation would be based on the teaching by Harnik that the prior art compounds are estrogenic and the knowledge in the art that estrogenic compounds are useful in estrogen replacement therapy.

Telephone Inquiry

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara P. Badio, Ph.D. whose telephone number is 571-272-0609. The examiner can normally be reached on M-F from 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Barbara P. Badio, Ph.D.
Primary Examiner
Art Unit 1617

BB
March 3, 2006